Redefined
Los Angeles-Anaheim Design-Build Section
ARRA Track 2 Scope

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Introduction

In January 2010 the Federal Railroad Administration (FRA) notified the California High-Speed Rail Authority (Authority) that it had been selected to receive an American Recovery and Reinvestment Act of 2009 (ARRA) Track 2 grant award of up to $2.25 billion (B) upon satisfaction of certain grant conditions and requirements. From that amount $400 million (M) has been allocated by USDOT to the Transbay Transit Center. Additionally, $194 M of the ARRA funds is earmarked for the completion of the Preliminary Engineering/National Environmental Protection Act/California Environmental Quality Act (PE/NEPA/CEQA) activities for Phase 1 of the California High-Speed Train Project (CHSTP). Hence the remaining funds available for the final design and construction are $1.656 B, and when matched with California Proposition 1A Bond funds are up to $3.312 B. Four design/build (D/B) program sections, including the Los Angeles-Anaheim Section discussed here, were proposed by the Authority for ARRA Track 2 funding in October 2009, and all four are still considered eligible. Presumably, one of these four eligible sections will ultimately be funded, but which one is not currently known.

In applying for funding under the FY10 Service Development Programs (SDP) solicitation, the Authority has decided to re-assess the original ARRA Track 2 grant scope, identify needed refinements to optimize use of the $3.312B available funding (while meeting the FRA's "independent utility" criteria), and develop potential additional scope for this year's round of HSIPR funding, which would complement or enhance the ARRA Track 2 section scope and help advance the CHSTP. However, since no decision has yet been made as to which of the four ARRA-eligible projects would ultimately be funded, the Authority has redefined the scope of each of these four project sections, describing how operational independence could be achieved, and defined the measurable benefits of each.

Due to funding constraints only one ARRA-eligible project/section, potentially augmented by its associated FY10 SDP grant scope will ultimately be funded. While the FRA would prefer the Authority to prioritize the sections, this is not currently possible, so four new grant requests are being submitted to complement and enhance the four ARRA-eligible project sections. The Authority proposes to combine any FY10 HSIPR Service Development Program funding awarded under the current solicitation with the available ARRA Track 2 funding to construct an enhanced project section of the CHSTP.

The ARRA-eligible scope in each project section needs to be clearly defined since one of the conditions of the current solicitation is that projects that have received HSIPR program funding under previous solicitations (e.g., ARRA Track 2 grants) are not eligible for new funding (i.e., the identical projects cannot be re-submitted). Therefore, as part of preparing new grant requests, the Authority has redefined the four ARRA-eligible project sections.

Projects funded with ARRA Track 2 funds must retain "operational independence" as defined in Sec. 3.5.2 of the Notice of Funding Availability (NOFA), without considering any new funds. As the Authority was awarded only approximately 50% of its original ARRA application value, the FRA requires clarity on how this funding would be applied in case of award, to meet the "operational independence" criteria. Therefore, the Authority has redefined or refined the scope of each of these projects, described how operational independence would be achieved, and identified the measurable benefits of each.

The refined ARRA-eligible project sections remain subject to the schedule constraints (NOD/ROD by Sept 2011). It is understood that while the FY10 HSIPR applications for the enhancements of the ARRA corridors are not subject to the ARRA timelines, the use of these funds is contingent on the completion of the NOD/ROD for the ARRA sections to be on schedule.

Following is a redefinition of the scope of the Los Angeles-Anaheim ARRA D/B Program Section.

A. Original Los Angeles-Anaheim ARRA D/B Grant Scope (see Figure 1):

- The Authority applied for $4.375 B for track and structures ($1,126 M), stations ($555.6 M) right-of-way and sitework ($2,119 M) and associated professional services and contingency for the HST civil infrastructure including track from LA to Anaheim based on the Dedicated Track Alternative.
- Amtrak *Surfliner* service would meet operational independence requirement, but requires signaling.

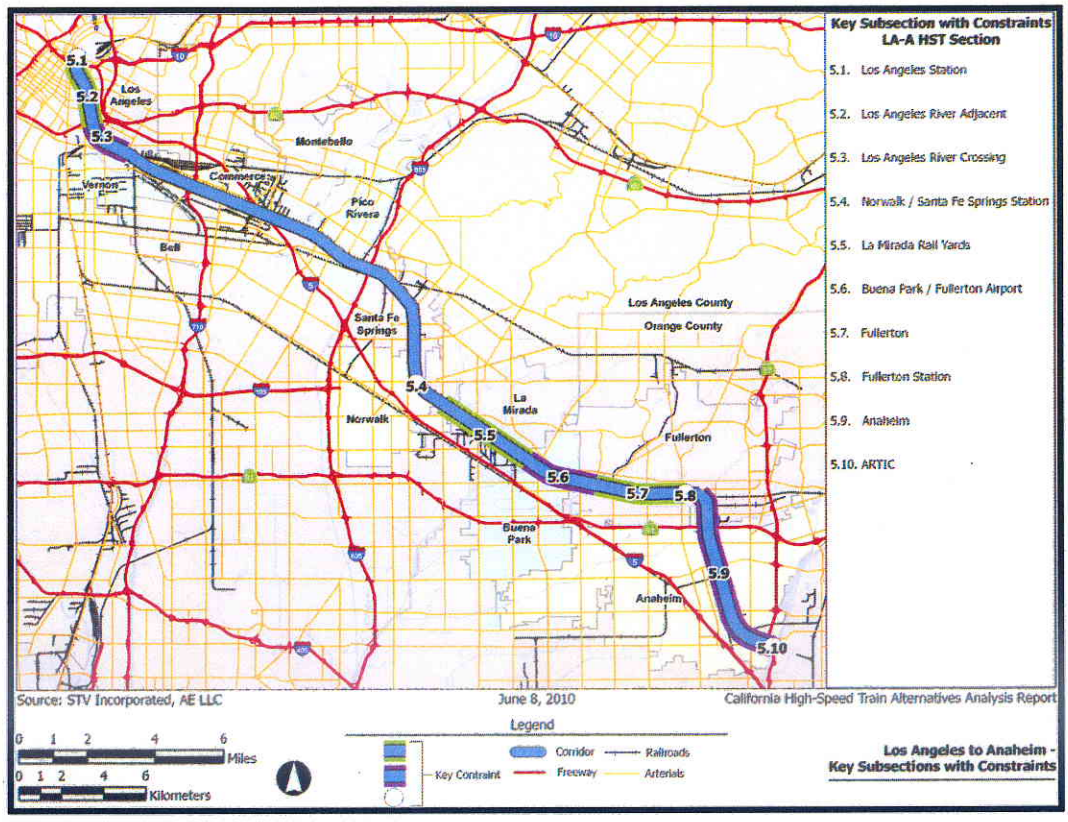

Figure 1

B. Refinements and re-scoping of the LA-Anaheim ARRA section

- The total available ARRA D/B funding ($3.312B) will not suffice to build this complete segment. Program developments have further increased the costs of certain alternatives which remain applicable.
- The refined scope focuses on infrastructure improvements common to both current alternatives (Dedicated and Shared-Track Alternatives), to the extent possible, and particularly those with the biggest near-term benefits to intercity passenger service, and will stretch from east of the LA River to west of Carmenita Road (see Figure 2), namely:
  - Commerce/Vernon to Santa Fe Springs aerial structure - All passenger trains, except Riverside and San Bernardino County, would diverge onto the new aerial structure east of the LA River and converge back onto the BNSF freight tracks just east of Carmenita Road.
  - Removes all San Diego and Orange County passenger and Amtrak long-distance train operations from interactions with freight operators in the highly congested BNSF Railway Hobart Yard area. Riverside and San Bernardino County passenger operations would continue to use BNSF freight tracks to serve the Commerce station.

- Aerial structure over the San Gabriel River area - Removes passenger operations from two at-grade freight rail-rail crossings and three at-grade rail-road crossings.
- New Norwalk/Santa Fe Springs train station is included to provide current passenger operations the ability to serve the Norwalk/SFS station area, a highly utilized station. (No decision has been made yet as to possible intermediate High-Speed Rail station locations in this section. Both Norwalk/SFS and Fullerton are currently being considered and evaluated in the DEIR/DEIS.) New HST platforms at this station would not be built until later.
- A signaling/PTC system is required for operational independence and has been added to the re-defined ARRA grant scope
- The improvements described in this application are based on the Shared-Track Alternative. This is not intended to prejudice nor influence the final Locally Preferred Alternative still to be determined through the EIR/EIS process.

- The aforementioned work would complete more than 50% of the civil/infrastructure work which would ultimately be needed in this corridor (excluding Los Angeles Union Station and ARTIC Station and electrification). It would include construction of two new tracks for future High-Speed and shared passenger service, in addition to the existing three mainline BNSF freight/passenger shared tracks between Redondo Jct. and Fullerton Jct. Under the initial ARRA Track 2 grant, the new 2-track passenger track alignment could be built from just east of the LA River to east Santa Fe Springs (about 15 miles).
- Operational independence is provided through Amtrak *Surfliner* and Metrolink service that would both use the new infrastructure.

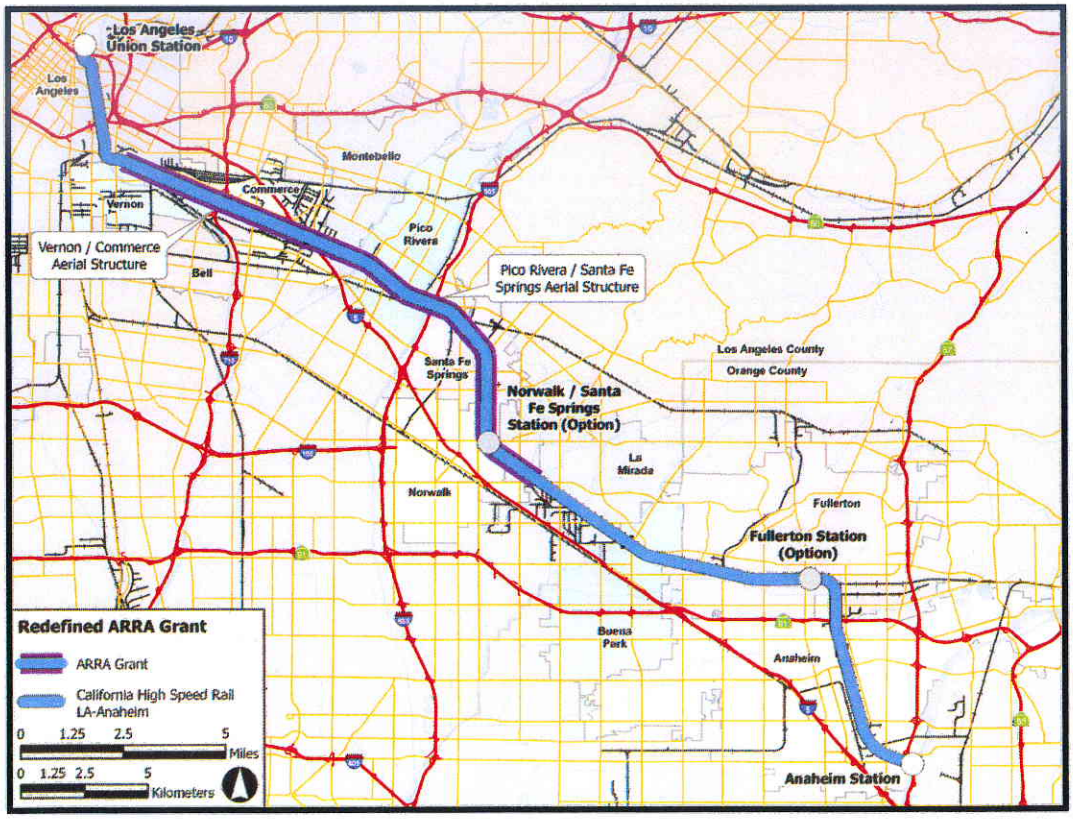

Figure 2

C. Los Angeles-Anaheim FY10 SDP Grant Application Scope (see Figure 3):

- Continue with the civil infrastructure and trackwork not completed with the ARRA funding from just west of Carmenita Road in Santa Fe Springs to Fullerton Jct - All passenger trains, except Riverside and San Bernardino County and long-distance Amtrak, would diverge onto the new aerial structure east of the LA River and remain separated from the BNSF freight tracks through the Fullerton Jct. These trains would converge onto the OCTA tracks south of the Fullerton Jct., effectively eliminating approximately 55 passenger trains from freight interaction between Hobart Yard and Fullerton Jct. on the 3 mainline BNSF tracks in this section.
- Construction of Rosecrans/Marquardt Grade Separation – A high-priority project that improves safety and is needed under all scenarios.
- Relocate Buena Park Metrolink station to allow for construction of a "duck-under" of the freight tracks to separate passengers trains from freight trains. (A duck-under is needed, rather than a flyover, to avoid interfering with FAA flight paths into Fullerton Airport.)
- Close grade crossings or install four-quadrant gates at remaining grade crossings and install Positive Train Control (PTC) in the La Mirada to Anaheim alignment.
- Amtrak *Surfliner* service on this line would meet FRA's operational independence requirement.
- The improvements described in this application are based on the Shared-Track Alternative. This is not intended to prejudice nor influence the final Locally Preferred Alternative still to be determined through the EIR/EIS process.
- The total cost of this added scope is estimated to be $1.432 B ($YOE). A proposed 70% federal share of $1.0B would be matched by a 30% state share ($432 M).

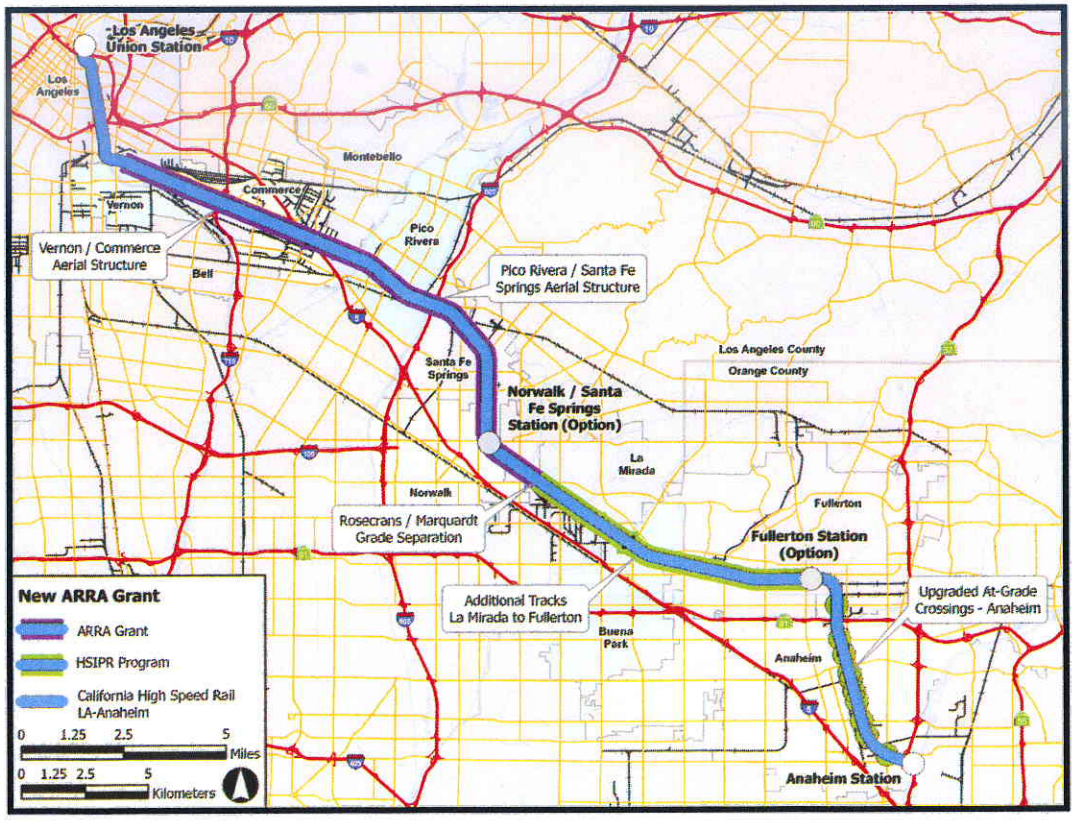

Figure 3

Attachments: Revised Budget and Schedule Forms (OMB No. 2130-0684)

Note: The attached budget form shows a revised total of $3,296,876,000 for this section. The intent is to apply the full amount of available ARRA Track 2 grant funding ($3.312 B) to whichever ARRA-eligible section is funded. The difference between the attached revised estimate and the total available budget would be retained as additional Unallocated Contingency.

Service Development Program Budget and Schedule Form

Welcome to the Service Development Program Budget and Schedule Form. To begin, save this Excel workbook to your computer and open the file. The buttons below will help you to easily navigate the forms contained in this file. To get started click on the button labeled "1. General Info."

Note 1: Yellow cells require you to enter values and blue cells are set up to auto-populate based on formulas that are embedded in the forms. If you have questions about this form or the formulas and calculations contained herein, please email the HSIPR Program Manager at HSIPR@dot.gov.

Note 2: For purposes of this application, "Fiscal Year (FY)" refers to the Federal fiscal year (October 1- September 30).

Color Key for Completing this Form:

Cell Type/Color:	Applicant Should Input a Value	Template will Auto Populate (see note 1 above)	FRA Use Only: Applicant Does Not Complete

General Info (click here first)

Capital Cost Info. (Standard Cost Categories for reference)

Detailed Capital Cost Budget

Annual Capital Cost Budget

Instructions for Operating & Financial Sheets

Operating & Maintenance Info

Operating & Financial Performance

Sustainability Sheet

Analysis of Funding Sources for Sustainability

Program Schedule

General Information

Below, please indicate the Service Development Program name. The Service Development Program name must be identical to the name listed in the Application Form. Limited to 50 characters, the name must consist of the following elements, each separated by a hyphen: (1) the State abbreviation of the State submitting this application; (2) the route or corridor name that is the subject of the related Corridor Service Overview; and (3) a descriptor that will concisely identify the Corridor Program's focus (e.g., HI-Fast Corridor-Main Stem)

1. Please enter the requested data into the yellow cells.
This information will auto-populate other areas of the form.

Service Development Program Name (*same as on Application Form*): CA-LA/ANAHEIMHSR-DESIGN/BUILD

Application Assumptions

1. Please use this section to capture two separate sets of assumptions that will enter the costs shown in subsequent sheets. The contingency rate is the allowance for uncertainties in projected costs. The Annual Inflation Rate will be used to convert between 2011 constant dollars and Year of Expenditure dollars. Enter the assumed annual inflation rate for each category for each year, with the exception of 2010 and 2011. Inflation rates for 2010 and 2011 are not used in Year of Expenditure calculations in other sections of this form.

Cost Categories*	Contingency Rate Assumption (%)	Annual Inflation Rate Assumptions by Year (%)									
		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Categories for Detailed Capital Cost Budget											
10 Track Structures and Track	15.0%			2.5%	3.0%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%
20 Stations, Terminals, Intermodal	25.0%			2.5%	3.0%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%
30 Support Facilities: Yards, Shops, Admin. Bldgs	25.0%			2.5%	3.0%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%
40 Sitework, Right of Way, Land, Existing Improvements & Special Conditions	15.0%			2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
50 Communications & Signaling	15.0%			2.5%	3.0%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%
60 Electric Traction	15.0%			2.5%	3.0%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%
70 Vehicles	0.0%										
80 Professional Services (applies to Cats. 10-60)	0.0%			2.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
90 Unallocated Contingency	n/a			2.5%	3.0%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%
100 Finance Charges	n/a										
Category for Operating, Financial, and Sustainability Information		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019**
Operating, Financial, Sustainability Information-- All-Purpose Inflation Rates		3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%

* See "Capital Cost Info." for definitions and explanations of the Standard Capital Cost (SCC) Categories.

** For 2019 Operating, Financial, and Sustainability Inflation Assumptions, enter a single annual inflation rate for 2019 that will be used for 2019 and all subsequent years.

If not using the FRA formulas, please describe your methodology in the space provided below as well as listing any supporting documentation.

Detailed Capital Cost Budget

Instructions:
To assist FRA in comparing projects, this form provides a breakdown of capital cost using Standard Cost Categories (SCCs). Definitions of FRA's SCCs can be found in the "Capital Cost Info" tab of this workbook. The data you enter in this form should be drawn from budget estimates or analysis you have available for your project.

1. Enter values in the yellow cells below. You should only provide data for those costs categories associated with this project; leave others blank.

2. The light blue cells will auto-populate based on the Contingency rates entered in "General Info."

3. Explain any large discrete, identifiable and/or unique capital investments in the space provided at the bottom of this form. Where an explanation is appropriate, place an asterisk in the far right column to denote that an explanation is provided. Please include the reference to the Cost Category number in your explanation. Example: "10.07: Tunnel at xxxx (location), x.x miles in length, consists of one twin-tube New Austrian Tunneling Method tunnel with cross-passages located every .25 miles."

4. For purposes of this application "Base Year Dollars" are Fiscal Year (FY) 2011 Dollars.

Program Name:	CA-LA/ANAHEIMHSR-DESIGN/BUILD

		Applicant Inputs								
		Unit	Quantity	Unit Cost (Thousands of Base Yr/FY 11 Dollars)	Non-Unit Based Costs	Total Allocated Cost (Thousands of Base Yr FY11 Dollars)	Allocated Contingency (Thousands of Base Yr/FY 11 Dollars)	TOTAL COST (Thousands of Base Yr/FY 11 Dollars)	Explanation Provided? (If so use *)
10	TRACK STRUCTURES & TRACK					$ 1,501,229	$ 225,184	$ 1,726,414	
10.01	Track structure: Viaduct	Miles				$ -	$ -	$ -	
10.02	Track structure: Major/Movable bridge				$ 1,321,965	$ 1,321,965	$ 198,295	$ 1,520,259	
10.03	Track structure: Undergrade Bridges					$ -	$ -	$ -	
10.04	Track structure: Culverts and drainage structures	#				$ -	$ -	$ -	
10.05	Track structure: Cut and Fill (> 4' height/depth)	Miles				$ -	$ -	$ -	
10.06	Track structure: At-grade (grading and subgrade stabilization)	Miles	7.68	$ 2,724		$ 20,928	$ 3,139	$ 24,067	
10.07	Track structure: Tunnel					$ -	$ -	$ -	
10.08	Track structure: Retaining walls and systems	Miles				$ -	$ -	$ -	
10.09	Track new construction: Conventional ballasted				$ 94,296	$ 94,296	$ 14,144	$ 108,440	
10.10	Track new construction: Non-ballasted					$ -	$ -	$ -	
10.11	Track rehabilitation: Ballast and surfacing					$ -	$ -	$ -	
10.12	Track rehabilitation: Ditching and drainage					$ -	$ -	$ -	
10.13	Track rehabilitation: Component replacement (rail, ties, etc)					$ -	$ -	$ -	
10.14	Track: Special track work (switches, turnouts, insulated joints)				$ 54,180	$ 54,180	$ 8,127	$ 62,307	
10.15	Track: Major interlockings					$ -	$ -	$ -	
10.16	Track: Switch heaters (with power and control)					$ -	$ -	$ -	
10.17	Track: Vibration and noise dampening					$ -	$ -	$ -	
10.18	Other linear structures including fencing, sound walls	Miles	5.06	$ 1,950		$ 9,861	$ 1,479	$ 11,340	
20	STATIONS, TERMINALS, INTERMODAL					$ 27,600	$ 6,900	$ 34,500	
20.01	Station buildings: Intercity passenger rail only				$ 27,600	$ 27,600	$ 6,900	$ 34,500	
20.02	Station buildings: Joint use (commuter rail, intercity bus)					$ -	$ -	$ -	
20.03	Platforms					$ -	$ -	$ -	
20.04	Elevators, escalators					$ -	$ -	$ -	
20.05	Joint commercial development					$ -	$ -	$ -	
20.06	Pedestrian / bike access and accommodation, landscaping, parking lots					$ -	$ -	$ -	
20.07	Automobile, bus, van accessways including roads					$ -	$ -	$ -	
20.08	Fare collection systems and equipment					$ -	$ -	$ -	
20.09	Station security					$ -	$ -	$ -	
30	SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS					$ -	$ -	$ -	
30.01	Administration building: Office, sales, storage, revenue counting					$ -	$ -	$ -	
30.02	Light maintenance facility					$ -	$ -	$ -	
30.03	Heavy maintenance facility					$ -	$ -	$ -	
30.04	Storage or maintenance-of-way building/bases					$ -	$ -	$ -	
30.05	Yard and yard track					$ -	$ -	$ -	
40	SITEWORK, RIGHT OF WAY, LAND, EXISTING IMPROVEMENTS					$ 637,117	$ 95,567	$ 732,684	
40.01	Demolition, clearing, site preparation					$ -	$ -	$ -	
40.02	Site utilities, utility relocation				$ 238,135	$ 238,135	$ 35,720	$ 273,856	
40.03	Hazardous material, contaminated soil removal/mitigation, ground water treatments					$ -	$ -	$ -	
40.04	Environmental mitigation: wetlands, historic/archeology, parks					$ -	$ -	$ -	
40.05	Site structures including retaining walls, sound walls					$ -	$ -	$ -	
40.06	Temporary facilities and other indirect costs during construction					$ -	$ -	$ -	
40.07	Purchase or lease of real estate				$ 268,387	$ 268,387	$ 40,258	$ 308,645	
40.08	Highway/pedestrian overpass/grade separations				$ 130,594	$ 130,594	$ 19,589	$ 150,183	
40.09	Relocation of existing households and businesses					$ -	$ -	$ -	

		Unit	Quantity	Unit Cost (Thousands of Base Yr/FY 11 Dollars)	Non-Unit Based Costs	Total Allocated Cost (Thousands of Base Yr FY11 Dollars)	Allocated Contingency (Thousands of Base Yr/FY 11 Dollars)	TOTAL COST (Thousands of Base Yr/FY 11 Dollars)	Explanation Provided? (If so use *)
50	COMMUNICATIONS & SIGNALING					$ 73,800	$ 11,070	$ 84,870	
50.01	Wayside signaling equipment					$ -	$ -	$ -	
50.02	Signal power access and distribution					$ -	$ -	$ -	
50.03	On-board signaling equipment					$ -	$ -	$ -	
50.04	Traffic control and dispatching systems				$ 73,800	$ 73,800	$ 11,070	$ 84,870	
50.05	Communications					$ -	$ -	$ -	
50.06	Grade crossing protection					$ -	$ -	$ -	
50.07	Hazard detectors (dragging equipment, , slide, etc.)					$ -	$ -	$ -	
50.08	Station train approach warning system					$ -	$ -	$ -	
60	ELECTRIC TRACTION					$ -	$ -	$ -	
60.01	Traction power transmission: High voltage					$ -	$ -	$ -	
60.02	Traction power supply: Substations	#				$ -	$ -	$ -	
60.03	Traction power distribution: Catenary and third rail	#				$ -	$ -	$ -	
60.04	Traction power control					$ -	$ -	$ -	
	Construction Subtotal (10-60)					$ 2,239,746	$ 338,722	$ 2,578,468	
70	VEHICLES					$ -	$ -	$ -	
70.00	Vehicle acquisition: Electric locomotive	#				$ -	$ -	$ -	
70.01	Vehicle acquisition: Non-electric locomotive	#				$ -	$ -	$ -	
70.02	Vehicle acquisition: Electric multiple unit	#				$ -	$ -	$ -	
70.03	Vehicle acquisition: Diesel multiple unit	#				$ -	$ -	$ -	
70.04	Veh acq: Loco-hauled passenger cars w/ ticketed space	#				$ -	$ -	$ -	
70.05	Veh acq: Loco-hauled passenger cars w/o ticketed space	#				$ -	$ -	$ -	
70.06	Vehicle acquisition: Maintenance of way vehicles	#				$ -	$ -	$ -	
70.07	Vehicle acquisition: Non-railroad support vehicles	#				$ -	$ -	$ -	
70.08	Vehicle refurbishment: Electric locomotive	#				$ -	$ -	$ -	
70.09	Vehicle refurbishment: Non-electric locomotive	#				$ -	$ -	$ -	
70.10	Vehicle refurbishment: Electric multiple unit	#				$ -	$ -	$ -	
70.11	Vehicle refurbishment: Diesel multiple unit	#				$ -	$ -	$ -	
70.12	Veh refurb: Passeng. loco-hauled car w/ ticketed space	#				$ -	$ -	$ -	
70.13	Veh refurb: Non-passeng loco-hauled car w/o ticketed space	#				$ -	$ -	$ -	
70.14	Vehicle refurbishment: Maintenance of way vehicles	#				$ -	$ -	$ -	
70.15	Spare parts					$ -	$ -	$ -	
80	PROFESSIONAL SERVICES					$ 308,889	$ -	$ 308,889	
80.01	Service Development Plan/Service Environmental					$ -	$ -	$ -	
80.02	Preliminary Engineering/Project Environmental					$ -	$ -	$ -	
80.03	Final Design				$ 131,618	$ 131,618	$ -	$ 131,618	
80.04	Project management for design and construction				$ 76,777	$ 76,777	$ -	$ 76,777	
80.05	Construction administration & management				$ 87,745	$ 87,745	$ -	$ 87,745	
80.06	Professional liability and other non-construction insurance					$ -	$ -	$ -	
80.07	Legal; Permits; Review Fees by other agencies, cities, etc.				$ 12,749	$ 12,749	$ -	$ 12,749	
80.08	Surveys, testing, investigation					$ -	$ -	$ -	
80.09	Engineering inspection					$ -	$ -	$ -	
80.10	Start up					$ -	$ -	$ -	
	Subtotal (10-80)					$ 2,548,635	$ 338,722	$ 2,887,357	
90	UNALLOCATED CONTINGENCY							$ 130,000	
	Subtotal (10-90)							$ 3,017,357	
100	FINANCE CHARGES								
	TOTAL CAPITAL COSTS (10-100)							$ 3,017,357	

Space provided for additional descriptions of capital costs.
See Example under "Instructions" above. Please include references to specific Cost Category numbers.

Annual Capital Cost Budget

Instructions:

This form provides a breakdown by year of the capital costs entered in the previous "Detailed Capital Cost Budget". The data you enter in this form should be drawn from budget estimates or analysis you have available for your project.

1. In the yellow cells in the "Base Year/ FY 2011 Dollars" table, enter the annual dollar figures for each cost category in thousands of Base Year/FY 2011 Dollars. f you have allowable 2010 expenditures, record those in the 2011 cost category fields.

2. In the "Base Year/ FY 2011 Dollars" table, the numbers in the "Double Check Total" column will auto-populate from the "Detailed Capital Cost Budget" in the previous tab. The numbers in the "Base Yr/FY 11 Total" column will be the sum of the annual data entered to the left. The two columns should match for each Standard Cost Categpry. If the entries in the "Double Check Total" column are not identifcal, the Base Year/FY 11 values you entered in the previous tab do not match the values entered in this tab.

3. The light blue cells in the Year of Expenditure (YOE) table will auto-populate using Inflation rates from the "General Info" tab.

Program Name:	CA-LA/ANAHEIMHSR-DESIGN/BUILD

BASE YEAR FY 2011 DOLLARS (Thousands)	2011	2012	2013	2014	2015	2016	2017	2018	2019	Total in Base Yr /FY 11 Dollars*	Check Figures Taken from Detailed Budget‡
10 TRACK STRUCTURES & TRACK		$ 172,640	$ 258,960	$ 517,921	$ 517,921	$ 172,640	$ 86,320			$ 1,726,403	$ 1,726,414
20 STATIONS, TERMINALS, INTERMODAL				$ 5,175	$ 12,075	$ 12,075	$ 5,175			$ 34,500	$ 34,500
30 SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS										$ -	$ -
40 SITEWORK, RIGHT OF WAY, LAND, EXISTING IMPROVEMENTS		$ 219,805	$ 439,610	$ 73,268						$ 732,683	$ 732,684
50 COMMUNICATIONS & SIGNALING					$ 12,731	$ 33,948	$ 25,461	$ 12,731		$ 84,870	$ 84,870
60 ELECTRIC TRACTION										$ -	$ -
70 VEHICLES										$ -	$ -
80 PROFESSIONAL SERVICES (applies to Cats. 10-60)		$ 30,889	$ 46,333	$ 61,778	$ 61,778	$ 61,778	$ 30,889	$ 15,444		$ 308,889	$ 308,889
90 UNALLOCATED CONTINGENCY		$ 13,000	$ 19,500	$ 26,000	$ 26,000	$ 26,000	$ 13,000	$ 6,500		$ 130,000	$ 130,000
100 FINANCE CHARGES										$ -	$ -
Total Program Cost (10-100)	$ -	$ 436,334	$ 764,404	$ 684,142	$ 630,504	$ 306,441	$ 160,845	$ 34,675	$ -	$ 3,017,345	$ 3,017,357

YEAR OF EXPENDITURE (YOE) DOLLARS	2011	2012	2013	2014	2015	2016	2017	2018	2019	YOE Total**
10 TRACK STRUCTURES & TRACK	$ -	$ 176,956	$ 273,398	$ 565,933	$ 585,741	$ 202,080	$ 104,577	$ -	$ -	$ 1,908,685
20 STATIONS, TERMINALS, INTERMODAL	$ -	$ -	$ -	$ 5,655	$ 13,656	$ 14,134	$ 6,269	$ -	$ -	$ 39,715
30 SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
40 SITEWORK, RIGHT OF WAY, LAND, EXISTING IMPROVEMENTS	$ -	$ 224,201	$ 457,370	$ 77,753	$ -	$ -	$ -	$ -	$ -	$ 759,324
50 COMMUNICATIONS & SIGNALING	$ -	$ -	$ -	$ -	$ 14,398	$ 39,737	$ 30,846	$ 15,963	$ -	$ 100,943
60 ELECTRIC TRACTION	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
70 VEHICLES	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
80 PROFESSIONAL SERVICES (applies to Cats. 10-60)	$ -	$ 31,507	$ 48,678	$ 66,851	$ 68,856	$ 70,922	$ 36,525	$ 18,810	$ -	$ 342,149
90 UNALLOCATED CONTINGENCY	$ -	$ 13,325	$ 20,587	$ 28,410	$ 29,405	$ 30,434	$ 15,749	$ 8,150	$ -	$ 146,061
100 FINANCE CHARGES	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total Program Cost (10-100)	$ -	$ 445,989	$ 800,033	$ 744,602	$ 712,055	$ 357,308	$ 193,966	$ 42,923	$ -	$ 3,296,876

* For the purpose of this application, base year dollars are considered FY 2011 dollars.

**Year-of-Expenditure(YOE) dollars are inflated Base Year dollars. Applicants must determine their own inflation rate and enter it on the "General Info" tab. Applicants should also explain their proposed inflation assumptions (and methodology, if applicable) in the Application Form.

‡ As a convenience to applicants in cross-checking their figures, this column shows the "Total Costs" by category in FY 2011 dollars carried over from the "Detailed Capital Cost Budget" sheet.

If not using the FRA-provided formulas, please describe your methodology in the space provided below as well as listing any supporting documentation.

Return to the Main Page

Schedule- Service Development Program

Instructions:

1. In the yellow cells below, enter the anticipated "Start Date" and "End Date" for each high level activity (e.g., Final Design, Construction, Service Ops).

2. Illustrate the anticipated timing and duration of each task item on the chart below. Shade the quarters or months for each corresponding year in which work will take place on a task. Shade all cells in the corresponding row in which activity will take place. Enter an 'X' in a cell to shade that cell.

3. Complete this process for all of the tasks, both high-level tasks (e.g., Final Design) and subtasks (e.g., Issue request for bids, make awards of FD contracts).

Service Development Program Name
CA-LA/ANAHEIMHSR-DESIGN/BUILD

	Start Date	End Date	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
			Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4
Service Development Plan																				
Develop Service Development Plan																				
Develop Service Selection NEPA documentation																				
Receive environmental determination for Service Selection NEPA																				
Submit request / receive FRA approval for Letter of Intent (if applicable)																				
Preliminary Engineering (PE)																				
Issue requests for bids, make awards of PE contracts																				
PE Drawings; and cost estimate, schedule, ridership forecast																				
Develop Project NEPA Document																				
Receive environmental determination for Project NEPA																				
Submit request / receive FRA funding obligation for FD/Construction (if applicable)																				
Final Design (FD)																				
Issue requests for bids, make awards of FD contracts	Oct-11	Dec-11																		
FD Drawings; and cost estimate, schedule refinement	Jan-12	Dec-16																		
Acquisition of real estate, relocation of households and businesses	Apr-11	Jun-13																		
Conduct reviews	Jan-11	Mar-11																		
Issue requests for bids	Apr-11	Sep-11																		
Submit request / receive FRA approval for Construction	Oct-11	Dec-11																		
Construction																				
Make awards of construction contracts	Oct-11	Dec-11																		
Construct infrastructure	Jan-12	Dec-16																		
Finalize real estate acquisitions and relocations	Jul-13	Dec-13																		
Acquire and test vehicles																				
Service Operations - Project/Program Close Date																				
Service Operations																				
Completion of project/program close-out, resolution of claims																				

Attachment 2: Summary of Transportation Benefits of the Redefined ARRA Track 2 grant for the Los Angeles-Anaheim Section

The LA-Anaheim ARRA base project is an integral part of the State-wide HST program to develop a new intercity passenger rail (IPR) service not provided today, with over 200 trains per day in 2035, carrying up to 100 million passengers statewide. Of these, approximately 50 million will be carried in Phase 1. Major benefits for mobility, economic activity, air quality, and land use development will be created, as documented in the 2005 California HST Statewide Program EIS/EIR and the 2008 Bay Area to Central Valley Program EIS/EIR.

In and of itself the project will provide an opportunity to speed up and improve safety for the California and US DOT-supported Surfliner service operated by Amtrak, as well as improve the service quality and capacity of freight and Metrolink regional commuter service in the LOSSAN corridor in the event of delay in implementation of the HST services. The project will build track and structure for HST trains, as well as current Amtrak and Metrolink trains and providing the opportunity for fossil-fueled locomotive operation at speeds of 110 mph. The project will fully grade separate this portion of the line, and reduce rail and road exposure to accidents at grade crossings. The project will install positive train control technology on the new line to allow safe and efficient operation.

OPERATIONAL INDEPENDENCE AND UTILITY -- IMPROVED SURFLINER TRANSPORTATION BENEFITS

The *Surfliners* running on the project's infrastructure would provide the State's first true 110 mph high-speed intercity rail service. At these speeds and with these improvements, the Surfliners could save roughly 10 minutes compared to current trip times between Anaheim and Los Angeles. The existing local trains would also save around 10 minutes, stopping at new stations on the new line to serve existing stops. As a result of an increase of two round trips foreseen in the State Rail Plan and forecast growth in the State, riders are anticipated to increase by 900,000 in the year 2018. The additional improvements from the ARRA base project will allow the achievement of three more round trips in the Amtrak long range plan, and generate another 200,000 passengers in the year 2022. Ridership will grow to 4.3 million passengers by the tenth year of operation, a 63% increase over today. The faster services will increase passenger miles by a similar percentage and 140 million passenger miles from today.

On-time performance of the *Surfliners* is rather variable, at around 75% for May 2010, and 88% a year earlier, time according to the Amtrak Monthly Report. Host railroad delays accounted for nearly 2/3 of total minutes of delay in May 2010 and the project's construction of a full double track alignment separated from freight trains dedicated to passenger service will improve this component of delay, although interference and slow orders on the remainder of the route will still impose some delay.
The full grade separation of the alignment from crossing road traffic is the most important safety improvement to the transportation system growing from this investment. It will improve safety for road users and rail passengers and personnel alike.

The higher speed and reliability will increase revenues as well as the proportion of operations cost covered by passenger fares to 58% from 48% today.

LOS ANGELES TO ANAHEIM - Revised ARRA Segment
PRO-FORMA SOURCES & USES IN THOUSANDS

Fiscal Year End*	[Date]	30/Sep/10	30/Sep/11	30/Sep/12	30/Sep/13	30/Sep/14	30/Sep/15	30/Sep/16	30/Sep/17	30/Sep/18	30/Sep/19	30/Sep/20	30/Sep/21	30/Sep/22
Periodic Growth in Revenue	[%]	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	6.3%	5.9%	5.6%	5.3%
Federal Grants - Capital Investments	[$ in '000]	0	0	223,544	403,223	372,703	354,063	176,254	94,841	20,559	0	0	0	0
State Grants - Capital Investments	[$ in '000]	0	0	223,544	403,223	372,703	354,063	176,254	94,841	20,559	0	0	0	0
Local Grants - Capital Investments	[$ in '000]	0	0	0	0	0	0	0	0	0	0	0	0	0
Operating Revenue - revised ARRA segment & Supplemental	[$ in '000]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	83.9	89.2	94.4	99.7	104.9
Operating Subsidies - Caltrans, Federal, & Metrolink	[$ in '000]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	68.9	74.5	80.1	85.7	91.3
Capital Replacement Subsidies- Caltrans , Federal, & Metrolink	[$ in '000]	0	0	0	0	0	0	0	0	10,249	10,249	10,249	10,249	10,249
Total Sources	**[$ in '000]**	**0.0**	**0.0**	**447,088.1**	**806,446.0**	**745,406.0**	**708,126.7**	**352,508.1**	**189,682.5**	**51,519.9**	**10,412.4**	**10,423.3**	**10,434.1**	**10,445.0**
Capital Costs - revised ARRA segment	[$ in '000]	0	0	(447,088)	(806,446)	(745,406)	(708,127)	(352,508)	(189,682)	(41,118)	0	0	0	0
Operating Costs - revised ARRA segment & Supplemental	[$ in '000]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	(152.8)	(163.6)	(174.5)	(185.4)	(196.2)
Capital Replacement Costs	[$ in '000]	0	0	0	0	0	0	0	0	(10,249)	(10,249)	(10,249)	(10,249)	(10,249)
Total Uses	**[$ in '000]**	**0.0**	**0.0**	**(447,088.1)**	**(806,446.0)**	**(745,406.0)**	**(708,126.7)**	**(352,508.1)**	**(189,682.5)**	**(51,519.9)**	**(10,412.4)**	**(10,423.3)**	**(10,434.1)**	**(10,445.0)**
Change in Cash	**[$ in '000]**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

* All projects that are funded by the ARRA monies will be complete by Federal Fiscal Year 2017. However, based on past experience, it is expected that complete funding of those projects will only occur by the early months of Federal Fiscal Year 2018 once all respective paperwork is completed.

LOS ANGELES TO ANAHEIM - Revised ARRA Segment
PRO-FORMA SOURCES & USES IN THOUSANDS

Fiscal Year End*	30/Sep/23	30/Sep/24	30/Sep/25	30/Sep/26	30/Sep/27	30/Sep/28	30/Sep/29	30/Sep/30	30/Sep/31	30/Sep/32	30/Sep/33	30/Sep/34	30/Sep/35	30/Sep/36	30/Sep/37
Periodic Growth in Revenue	5.0%	4.7%	4.5%	4.3%	4.1%	4.0%	3.8%	3.7%	3.6%	3.4%	3.3%	3.2%	3.1%	3.0%	2.9%
Federal Grants - Capital Investments	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
State Grants - Capital Investments	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Local Grants - Capital Investments	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Operating Revenue - revised ARRA segment & Supplemental	110.2	115.4	120.6	125.8	131.0	136.3	141.5	146.7	152.0	157.2	162.4	167.7	172.9	178.1	183.4
Operating Subsidies - Caltrans, Federal, & Metrolink	93.1	94.9	96.7	98.5	96.4	99.6	102.6	105.3	108.0	110.6	113.2	115.8	118.3	120.9	123.4
Capital Replacement Subsidies- Caltrans , Federal, & Metrolink	10,249	10,249	10,249	10,249	10,249	10,249	10,249	10,249	10,249	10,249	10,249	10,249	10,249	10,249	10,249
Total Sources	**10,452.0**	**10,459.0**	**10,466.1**	**10,473.1**	**10,476.3**	**10,484.7**	**10,492.9**	**10,500.9**	**10,508.8**	**10,516.6**	**10,524.5**	**10,532.2**	**10,540.0**	**10,547.8**	**10,555.5**
Capital Costs - revised ARRA segment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Operating Costs - revised ARRA segment & Supplemental	(203.2)	(210.3)	(217.3)	(224.3)	(227.5)	(235.9)	(244.1)	(252.1)	(260.0)	(267.9)	(275.7)	(283.5)	(291.2)	(299.0)	(306.7)
Capital Replacement Costs	(10,249)	(10,249)	(10,249)	(10,249)	(10,249)	(10,249)	(10,249)	(10,249)	(10,249)	(10,249)	(10,249)	(10,249)	(10,249)	(10,249)	(10,249)
Total Uses	**(10,452.0)**	**(10,459.0)**	**(10,466.1)**	**(10,473.1)**	**(10,476.3)**	**(10,484.7)**	**(10,492.9)**	**(10,500.9)**	**(10,508.8)**	**(10,516.6)**	**(10,524.5)**	**(10,532.2)**	**(10,540.0)**	**(10,547.8)**	**(10,555.5)**
Change in Cash	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

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